

## **ATTACHMENT TO INTERVIEW SUMMARY**

### **Proposed EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with \*\*\* on \*\*\*.

The application has been amended as follows:

15 (Currently Amended). A method of, in an operation-performing-apparatus line including a plurality of operation performing apparatuses which perform respective predetermined operations related to a circuit board substrate [such as a printed wiring board], and a substrate conveyor which extends through each of the operation performing apparatuses and conveys the circuit board substrate to said each operation performing apparatus, exchanging at least one first exchangeable constituent element of an operating head for performing a respective predetermined operation on the circuit board substrate of at least one operation performing apparatus [as at least a portion of the plurality of operation performing apparatuses,] with at least one second constituent element [present outside said portion], the method comprising the steps of:

causing an element carrier plate to hold said at least one second constituent element such that said at least one second constituent element is detachable from the element carrier plate,

causing the substrate conveyor to convey the element carrier plate from one of opposite ends of the operation-performing-apparatus line toward an other end thereof,

stopping the element carrier plate in said at least one operation performing apparatus [of said portion], and

automatically transferring said at least one second constituent element from said element carrier plate to a stocker portion of the at least one operation performing apparatus for storing constituent elements; and

automatically exchanging said at least one first constituent element, which is held by at least one apparatus-side element-holding portion of said operating head of said at least one operation performing apparatus, with said at least one second constituent element held by the [element carrier plate] stocker portion.

Firstly, it is noted that if Applicant is in agreement with the proposed changes to independent claim 15 above, Examiner will provide a detailed proposal for any necessary changes to the dependent claims (16-23 and 37-38, to overcome minor issues with respect thereto, such as issues with respect to 35 USC 112, some of which may have been necessitated by the amendment to claim 15).

Secondly, re claim 15 as submitted on 1/10/2008, it is noted that U.S. Pat. No. 5,692,292 to Asai et al. (for example) teaches a transfer-type circuit board fabricating system in the form of a “line” having a plurality of working modules or “operation performing apparatuses” 10, 12, 14, 16, 18, and 20 that each perform “a respective predetermined operation related to a circuit board substrate” in the form of a printed circuit board or PCB 24. The PCB 24 is conveyed through the modules via conveyor device 26 (see Figure 2, for example). Component supply device 60

provides components to be placed on the PCB by placer heads 96 of various ones of the modules (see Figure 2, for example, as well as at least col. 11, line 34 through col. 12, line 35 and col. 14, line 40 through col. 15, line 37, for example).

While Asai does teach that the system can be used to produce different PCB's, and also teaches that different modules can be used (see col. 28, lines 38-46, for example), Asai is silent about any exchange of "exchangeable constituent elements" of the modules, and thus does not explicitly teach the steps of "causing an element carrier plate to hold said at least one second constituent element such that said at least one second constituent element is detachable from the element carrier plate, causing the substrate conveyor to convey the element carrier plate from one of opposite ends of the operation-performing-apparatus line toward an other end thereof, stopping the element carrier plate in said at least one operation performing apparatus of said portion, and automatically exchanging said at least one first constituent element held by at least one apparatus-side element-holding portion of said at least one operation performing apparatus, with said at least one second constituent element held by the element carrier plate" as set forth in independent claim 15.

However, JP-4-123493 (cited by Applicant) teaches an arrangement wherein an "element carrier plate" 10 detachably holds "constituent elements" or nozzles 8 to be exchanged with a nozzle 8 of a placer head 1 that is used to place electronic parts or components P on a board substrate 4. The "element carrier plate" is conveyed along a line by the same conveyor 9 that conveys the board substrate 4 into the vicinity of the placer head 1 such that the automatic exchange of nozzles between head 1 and "element carrier plate" 10 can occur. See Figures 1-3 (additionally, Examiner consulted a Japanese-language translator).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the operation performing-apparatus line taught by Asai with the “element carrier plate”, that detachably holds replacement nozzles for the placer head, along the same conveyor (26 of Asai) that conveys the board substrate through the operation performing line, as taught by JP '493, for the purpose of enabling the nozzles of the placer head of Asai’s device to be automatically exchanged (e.g., when damaged or worn) in a simple manner, as would be evident and understood from JP '493's invention.